AMENDMENTS TO THE CLAIMS

Kindly amend claims 28, 34 and 43 without prejudice to the subject matter involved. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 27 (Cancelled).

28. (Currently amended) A microcapsule comprising an encapsulated material enclosed within a solid permeable shell of a polymer resin wherein

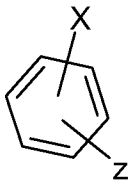
said polymer resin is made by the polymerisation of a urea formaldehyde prepolymer, in which the methylol ($-CH_2OH$) groups have optionally been partially etherified by reaction with a C_4-C_{10} alkanol, and the polymer resin has incorporated therein at least one surface modifying compound having a moiety –X as defined below which reacts with the methylol or etherified methylol moieties in the urea formaldehyde wall forming material;

and wherein said surface modifying compound is of formula (IA), (IB), (IC), (ID), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) or (IVA) or is a sulfonate polyester polyol

$$X\text{-}Y_1\text{-}Z \qquad (IA)$$

$$R_4\text{-}O(PO)_r(EO)_s\text{-}X \qquad (IB)$$

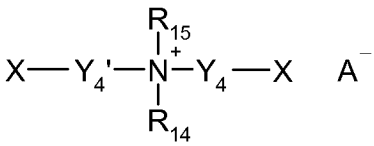
$$R_4'\text{-}O(PO)_{r'}(EO)_{s'}(PO)_t\text{-}X \qquad (IC)$$



(ID)

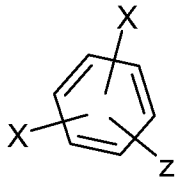
$$X\text{-}(EO)_a(PO)_b\text{-}X' \qquad (IIA)$$

$$X\text{-}(PO)_{a'}(EO)_{b'}(PO)_c\text{-}X' \qquad (IIB)$$

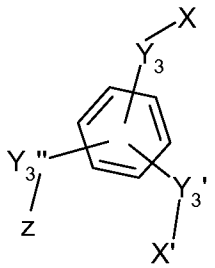


(IIC)

$$X\text{-}Y_2\text{-}C(Z)(R_6)\text{-}Y_2'\text{-}X' \qquad (IIIA)$$



(IIIB)



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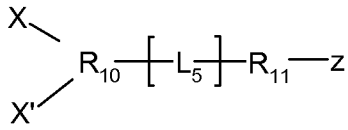


(IIID)

X-Y-NH-Y'-Z (IVA)

wherein the sulfonate polyester polyol is prepared by reacting sodium sulphoisophthalic acid, adipic acid, cyclohexane dimethanol, methoxy-polyethylene glycol (MW 750) and trimethylol propane to give a product having a hydroxyl number in the range of from 150 to 170;

and wherein in formulae (IA), (IB), (IC), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) and ~~to~~ (IVA) above Z if present is sulphonate, carboxylate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and wherein in formulae (ID) above Z if present is sulphonate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and each X or X' is, independently, hydroxyl, thiol, a group –NHA wherein A is hydrogen~~,~~ or C_1 to C_4 alkyl, or a group -CO-OR where R is hydrogen or a hydrocarbyl moiety having 1-30 carbon atoms optionally linked or substituted by one or more halo, amino, ether or thioether groups or combinations of these;

and wherein in formula (IA) Y_1 is a moiety linking X and Z and is a straight or branched alkyl chain containing from 1 to 20 carbon atoms or is naphthyl, cyclopentyl or cyclohexyl;

and wherein in formula (IB) R_4 is an end-capping group which is C_1 to C_4 alkyl, r and s are independently from 0 to 3000, provided that s is not 0 and the total of r + s is from 7 to 3000, and

EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IC) R_4' is an end-capping group which is C_1 to C_4 alkyl, r', s' and t are, independently, from 0 to 2000, provided that s' is not 0 and the total of r' + s' + t is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein formula (ID) X and Z are as defined above or if X and Z are adjacent substituents capable of reacting together they may form a cyclic anhydride capable or ring-opening under the reaction conditions;

and wherein in formula (IIA) a and b are independently from 0 to 3000, provided that a is not 0 and the total of a + b is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IIB) a', b' and c are, independently, from 0 to 2000, provided that b' is not 0 and the total of a' + b' + c is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein in formula (IIC) R_{14} and R_{15}, which may be the same or different, are hydrogen, C_1 to C_{20} straight or branched chain alkyl, aryl or C_1 to C_4 aralkyl, wherein each aryl group may be optionally substituted by C_1 to C_4 alkyl, nitro or halo, and Y_4 and Y_4' which may be the same or different are

$-R_8-$ or $-R_7-(L_1)_n-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is a polyoxyalkyene group wherein n is from 2 to 20 and A- is a suitable anion;

and wherein in formula (IIIA) R_6 is hydrogen or a C_1 to C_4 alkyl group optionally substituted by ether or halogen and Y_2 and Y_2', which may be same or different, are independently

$-R_7-(L_1)_n-$ or $-R_8-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is polyoxyethylene, polyoxypropylene or polyoxybutylene where n is from 2 to 20;

and wherein in formula (IIIB) X and Z are as previously defined;

and wherein in formula (IIIC) Y_3, Y_3' and Y_3'' individually represent a direct link between X or Z (as the case may be) and the ring structure or may be a group

$-(L_2)-R_9-$

where L_2 is an ester linking group –C(O)-O- and R_9 is oxyethylene, oxypropylene or oxybutylene or polyoxyethylene, polyoxypropylene or polyoxybutylene having a degree of polymerisation from 2 to 20;

and wherein in formula (IIID) R_{10} is a C_1 to C_8 straight or branched chain alkyl group, the two groups X and X', which may be the same or different, may be attached to the same carbon atom in the alkyl chain or to different carbon atoms in the alkyl chain, $-L_5-$ is a linking group which is

$-(L_1)_n-$ or $-R_8-$

wherein R_8 and $(L_1)_n$ are as defined above in relation to formula (IIIA) and R_{11} is C_1 to C_4 alkyl;

and wherein in formula (IVA) Y and Y' are each, independently, a straight or branched chain C_1 to C_{10} alkyl group, a polyoxyethylene, polyoxypropylene or polyoxybutylene polymer chain of formula $-(L_1)_n-$ as defined above or a group $-(L_2)-R_9-$ as defined above.

29. (Previously presented) A microcapsule according to claim 28 wherein

when -Z is sulphonate, carboxylate, phosphonate or phosphate it is present as a salt providing the $-Z^-$ anion; or

when -Z is quaternary ammonium it has the structure

$[-NR_1R_2R_3]^+ A'^-$

wherein R_1, R_2 and R_3 are independently hydrogen or C_1 to C_4 alkyl and A'^- is a suitable inorganic or organic anion, provided that not more than one of R_1, R_2 and R_3 is hydrogen; or

when -Z is oxyetheylene or an oxyethylene-containing polymer, it is an oxyethylene polymer or is a random or block oxyethylene/oxypropylene copolymer containing an oxyethylene to oxypropylene ratio of greater than 1.

30 – 32 (Cancelled).

33. (Withdrawn) A microcapsule according to claim 28 wherein the polymer resin is made by the polymerisation of a urea formaldehyde prepolymer and the mole ratio of the surface modifying agent to the number of urea-formaldehyde repeat units in the urea formaldehyde prepolymer is between 1:40 to 1:4.

34. (Currently amended) A modified process for the encapsulation of a dispersed material within a solid permeable shell of a polymer resin formed by polymerisation of a wall-forming material which comprises

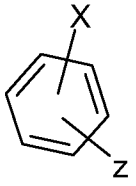
making said polymer resin by the polymerisation of a urea formaldehyde prepolymer in which the methylol ($-CH_2OH$) groups have optionally been partially etherified by reaction with a C_4-C_{10} alkanol, incorporating therein at least one surface modifying compound having a moiety –X which reacts with the methylol or etherified methylol moieties in the urea formaldehyde wall forming material;

wherein said surface modifying compound is of formula (IA), (IB), (IC), (ID), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) or (IVA) or is a sulfonate polyester polyol

$$X\text{-}Y_1\text{-}Z \qquad (IA)$$

$$R_4\text{-}O(PO)_r(EO)_s\text{-}X \qquad (IB)$$

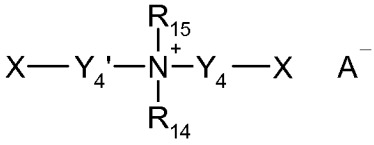
$$R_4'\text{-}O(PO)_{r'}(EO)_{s'}(PO)_t\text{-}X \qquad (IC)$$



(ID)

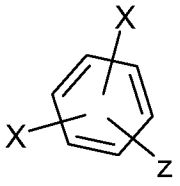
$$X\text{-}(EO)_a(PO)_b\text{-}X' \qquad (IIA)$$

$$X\text{-}(PO)_{a'}(EO)_{b'}(PO)_c\text{-}X' \qquad (IIB)$$



(IIC)

$$X\text{-}Y_2\text{-}C(Z)(R_6)\text{-}Y_2'\text{-}X' \qquad (IIIA)$$



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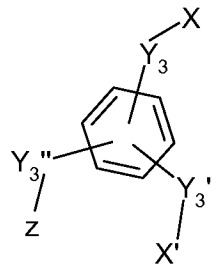
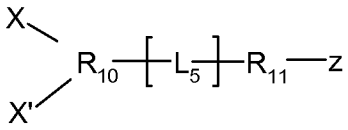


(IIIC)



(IIID)

X-Y-NH-Y'-Z (IVA)

wherein the sulfonate polyester polyol is prepared by reacting sodium sulphoisophthalic acid, adipic acid, cyclohexane dimethanol, methoxy-polyethylene glycol (MW 750) and trimethylol propane to give a product having a hydroxyl number in the range of from 150 to 170;

and wherein in formulae (IA), (IB), (IC), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) and ~~to~~ (IVA) above Z if present is sulphonate, carboxylate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and wherein in formulae (ID) above Z if present is sulphonate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and each X or X' is, independently, hydroxyl, thiol, a group –NHA wherein A is hydrogen~~,~~ or C_1 to C_4 alkyl, or a group -CO-OR where R is hydrogen or a hydrocarbyl moiety having 1-30 carbon atoms optionally linked or substituted by one or more halo, amino, ether or thioether groups or combinations of these;

and wherein in formula (IA) Y_1 is a moiety linking X and Z and is a straight or branched alkyl chain containing from 1 to 20 carbon atoms or is naphthyl, cyclopentyl or cyclohexyl;

and wherein in formula (IB) R_4 is an end-capping group which is C_1 to C_4 alkyl, r and s are independently from 0 to 3000, provided that s is not 0 and the total of r + s is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IC) R_4' is an end-capping group which is C_1 to C_4 alkyl, r', s' and t are, independently, from 0 to 2000, provided that s' is not 0 and the total of r' + s' + t is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein formula (ID) X and Z are as defined above or if X and Z are adjacent substituents capable of reacting together they may form a cyclic anhydride capable or ring-opening under the reaction conditions;

and wherein in formula (IIA) a and b are independently from 0 to 3000, provided that a is not 0 and the total of a + b is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IIB) a', b' and c are, independently, from 0 to 2000, provided that b' is not 0 and the total of a' + b' + c is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein in formula (IIC) R_{14} and R_{15}, which may be the same or different, are hydrogen, C_1 to C_{20} straight or branched chain alkyl, aryl or C_1 to C_4 aralkyl, wherein each aryl group may be optionally substituted by C_1 to C_4 alkyl, nitro or halo, and Y_4 and Y_4' which may be the same or different are

$-R_8-$ or $-R_7-(L_1)_n-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is a polyoxyalkyene group wherein n is from 2 to 20 and A- is a suitable anion;

and wherein in formula (IIIA) R_6 is hydrogen or a C_1 to C_4 alkyl group optionally substituted by ether or halogen and Y_2 and Y_2', which may be same or different, are independently

$-R_7-(L_1)_n-$ or $-R_8-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is polyoxyethylene, polyoxypropylene or polyoxybutylene where n is from 2 to 20;

and wherein in formula (IIIB) X and Z are as previously defined;

and wherein in formula (IIIC) Y_3, Y_3' and Y_3'' individually represent a direct link between X or Z (as the case may be) and the ring structure or may be a group

$-(L_2)-R_9-$

where L_2 is an ester linking group $-C(O)-O-$ and R_9 is oxyethylene, oxypropylene or oxybutylene or polyoxyethylene, polyoxypropylene or polyoxybutylene having a degree of polymerisation from 2 to 20;

and wherein in formula (IIID) R_{10} is a C_1 to C_8 straight or branched chain alkyl group, the two groups X and X', which may be the same or different, may be attached to the same carbon atom in the alkyl chain or to different carbon atoms in the alkyl chain, $-L_5-$ is a linking group which is

$-(L_1)_n-$ or $-R_8-$

wherein R_8 and $(L_1)_n$ are as defined above in relation to formula (IIIA) and R_{11} is C_1 to C_4 alkyl;

and wherein in formula (IVA) Y and Y' are each, independently, a straight or branched chain C_1 to C_{10} alkyl group, a polyoxyethylene, polyoxypropylene or polyoxybutylene polymer chain of formula $-(L_1)_n-$ as defined above or a group $-(L_2)-R_9-$ as defined above.

35. (Previously presented) A process according to claim 34 comprising

(a) reacting the surface-modifying compound with at least one wall-forming material thereby forming a modified surface-active intermediate;

(b) preparing an organic solution or oil phase comprising the material to be encapsulated, the modified surface-active intermediate, and, optionally, additional wall-forming material;

(c) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and, optionally, a protective colloid, wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and either

(d) causing *in situ* polymerization and/or curing of the modified wall-forming material in the organic solution of the discrete droplets at the interface with the aqueous solution by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, polymer shells enclosing the material and having the surface modifying compound incorporated therein; or as an alternative to (d)

(e) causing polymerization at the oil-water interface by bringing together a wall forming material added through the aqueous continuous phase and capable of reacting with the wall forming material(s) in the discontinuous oil phase.

36. (Withdrawn) A process according to claim 34 comprising

(a) preparing an organic solution or oil phase comprising the material to be encapsulated, the surface modifying compound and the wall-forming material;

(b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and, optionally, a protective colloid, wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and either

(c) causing *in situ* polymerization and/or curing of the modified wall-forming material in the organic solution of the discrete droplets at the interface with the aqueous solution by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, modified polymer shells enclosing the material; or as an alternative to (c)

(d) causing polymerization at the oil-water interface by bringing together a wall forming material added through the aqueous continuous phase and capable of reacting with the wall forming material(s) in the discontinuous oil phase.

37. (Previously presented) A process according to claim 34 comprising

(a) preparing an organic solution or oil phase comprising the material to be encapsulated and the wall-forming material;

(b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and the surface-modifying compound(s), wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and

(c) causing *in situ* polymerization and/or curing of the wall-forming material so that the surface-modifying molecule(s) is incorporated into the wall by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value, to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, modified polymer shells enclosing the material.

38. (Withdrawn) A process according to claim 34 comprising

(a) preparing an organic solution or oil phase comprising the material to be encapsulated and a first wall-forming material(s);

(b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and the surface-modifying compound(s), wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution whereupon the surface modifying compounds(s) react at the interface with wall forming material from the organic phase; and

(c) causing polymerization at the oil-water interface by bringing together a second wall forming material added through the aqueous continuous phase and capable of reacting with the first wall forming material(s) in the discontinuous oil phase.

39. (Withdrawn) A process according to claim 34 wherein there is employed a combination of the processes selected from at least two of the following:

1) a process comprising

a) reacting the surface-modifying compound with at least one wall-forming material thereby forming a modified surface-active intermediate;

b) preparing an organic solution or oil phase comprising the material to be encapsulated, the modified surface-active intermediate, and, optionally, additional wall-forming material;

c) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and, optionally, a protective colloid, wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and either

d) causing *in situ* polymerization and/or curing of the modified wall-forming material in the organic solution of the discrete droplets at the interface with the aqueous solution by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, polymer shells enclosing the

material and having the surface modifying compound incorporated therein, or as an alternative to (d)

e) causing polymerization at the oil-water interface by bringing together a wall forming material added through the aqueous continuous phase and capable of reacting with the wall forming material(s) in the discontinuous oil phase;

2) a process comprising

a) preparing an organic solution or oil phase comprising the material to be encapsulated, the surface modifying compound and the wall-forming material

b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and, optionally, a protective colloid, wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and either

c) causing *in situ* polymerization and/or curing of the modified wall-forming material in the organic solution of the discrete droplets at the interface with the aqueous solution by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, modified polymer shells enclosing the material; or as an alternative to (c)

(d) causing polymerization at the oil-water interface by bringing together a wall forming material added through the aqueous continuous phase and capable of reacting with the wall forming material(s) in the discontinuous oil phase;

3) a process comprising

a) preparing an organic solution or oil phase comprising the material to be encapsulated and the wall-forming material;

b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and the surface-modifying compound(s), wherein the emulsion comprises discrete droplets of the organic solution dispersed

throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution; and

c) causing *in situ* polymerization and/or curing of the wall-forming material so that the surface-modifying molecule(s) is incorporated into the wall by heating the emulsion for a sufficient period of time and optionally adjusting the pH to a suitable value, to allow substantial completion of wall formation, thereby converting the organic solution droplets to capsules consisting of solid, permeable, modified polymer shells enclosing the material; and

4) a process comprising

a) preparing an organic solution or oil phase comprising the material to be encapsulated and a first wall-forming material(s) ;

b) creating an emulsion of the organic solution in a continuous phase aqueous solution comprising water and the surface-modifying compound(s), wherein the emulsion comprises discrete droplets of the organic solution dispersed throughout the continuous phase aqueous solution, with an interface formed between the discrete droplets of organic solution and the aqueous solution whereupon the surface modifying compounds(s) react at the interface with wall forming material from the organic phase; and

c) causing polymerization at the oil-water interface by bringing together a second wall forming material added through the aqueous continuous phase and capable of reacting with the first wall forming material(s) in the discontinuous oil phase.

40. (Canceled)

41. (Previously presented) A microcapsule according to claim 28 wherein the encapsulated material is an agrochemical, an ink, a dye, a biologically active material or a pharmaceutical.

42. (Previously presented) A process according to claim 34 wherein the encapsulated material is an agrochemical, an ink, a dye, a biologically active material or a pharmaceutical.

43. (Currently amended) A method for modifying the soil mobility of an agrochemical, comprising:

(a) encapsulating the agrochemical within a solid permeable shell of a polymer resin formed by polymerisation of a wall-forming material wherein:

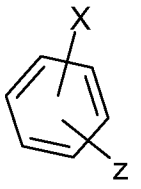
said polymer resin is made by the polymerisation of a urea formaldehyde prepolymer in which the methylol ($-CH_2OH$) groups have optionally been partially etherified by reaction with a C_4-C_{10} alkanol, incorporating therein at least one surface modifying compound having a moiety –X which reacts with the methylol or etherified methylol moieties in the urea formaldehyde wall forming material;

wherein said surface modifying compound is of formula (IA), (IB), (IC), (ID), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) or (IVA) or is a sulfonate polyester polyol

$$X\text{-}Y_1\text{-}Z \qquad (IA)$$

$$R_4\text{-}O(PO)_r(EO)_s\text{-}X \qquad (IB)$$

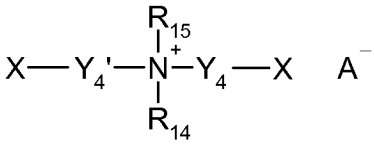
$$R_4'\text{-}O(PO)_{r'}(EO)_{s'}(PO)_t\text{-}X \qquad (IC)$$



(ID)

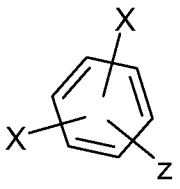
$$X\text{-}(EO)_a(PO)_b\text{-}X' \qquad (IIA)$$

$$X\text{-}(PO)_{a'}(EO)_{b'}(PO)_c\text{-}X' \qquad (IIB)$$



(IIC)

$$X\text{-}Y_2\text{-}C(Z)(R_6)\text{-}Y_2'\text{-}X' \qquad (IIIA)$$



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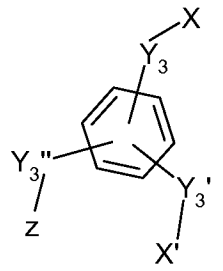

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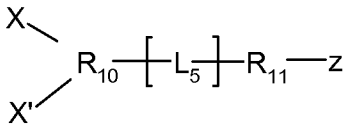

(IIID)

X-Y-NH-Y'-Z (IVA)

wherein the sulfonate polyester polyol is prepared by reacting sodium sulphoisophthalic acid, adipic acid, cyclohexane dimethanol, methoxy-polyethylene glycol (MW 750) and trimethylol propane to give a product having a hydroxyl number in the range of from 150 to 170;

and wherein in formulae (IA), (IB), (IC), (IIA), (IIB), (IIC), (IIIA), (IIIB), (IIIC), (IIID) and ~~to~~ (IVA) above Z if present is sulphonate, carboxylate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and wherein in formulae (ID) above Z if present is sulphonate, phosphonate, phosphate, quaternary ammonium, betaine, oxyethylene or an oxyethylene-containing polymer;

and each X or X' is, independently, hydroxyl, thiol, a group –NHA wherein A is hydrogen~~,~~ or C_1 to C_4 alkyl, or a group -CO-OR where R is hydrogen or a hydrocarbyl moiety having 1-30 carbon atoms optionally linked or substituted by one or more halo, amino, ether or thioether groups or combinations of these;

and wherein in formula (IA) Y_1 is a moiety linking X and Z and is a straight or branched alkyl chain containing from 1 to 20 carbon atoms or is naphthyl, cyclopentyl or cyclohexyl;

and wherein in formula (IB) R_4 is an end-capping group which is C_1 to C_4 alkyl, r and s are independently from 0 to 3000, provided that s is not 0 and the total of r + s is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IC) R_4' is an end-capping group which is C_1 to C_4 alkyl, r', s' and t are, independently, from 0 to 2000, provided that s' is not 0 and the total of r' + s' + t is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein formula (ID) X and Z are as defined above or if X and Z are adjacent substituents capable of reacting together they may form a cyclic anhydride capable or ring-opening under the reaction conditions;

and wherein in formula (IIA) a and b are independently from 0 to 3000, provided that a is not 0 and the total of a + b is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively which may be arranged in random or block formation;

and wherein in formula (IIB) a', b' and c are, independently, from 0 to 2000, provided that b' is not 0 and the total of a' + b' + c is from 7 to 3000, and EO and PO represent oxyethylene and oxypropylene respectively;

and wherein in formula (IIC) R_{14} and R_{15}, which may be the same or different, are hydrogen, C_1 to C_{20} straight or branched chain alkyl, aryl or C_1 to C_4 aralkyl, wherein each aryl group may be optionally substituted by C_1 to C_4 alkyl, nitro or halo, and Y_4 and Y_4' which may be the same or different are

$-R_8-$ or $-R_7-(L_1)_n-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is a polyoxyalkyene group wherein n is from 2 to 20 and A- is a suitable anion;

and wherein in formula (IIIA) R_6 is hydrogen or a C_1 to C_4 alkyl group optionally substituted by ether or halogen and Y_2 and Y_2', which may be same or different, are independently

$-R_7-(L_1)_n-$ or $-R_8-$

wherein R_7 and R_8 are, independently, C_1 to C_{10} straight or branched chain alkyl linking groups optionally substituted by halogen or C_1 to C_4 alkoxy and $(L_1)_n$ is polyoxyethylene, polyoxypropylene or polyoxybutylene where n is from 2 to 20;

and wherein in formula (IIIB) X and Z are as previously defined;

and wherein in formula (IIIC) Y_3, Y_3' and Y_3'' individually represent a direct link between X or Z (as the case may be) and the ring structure or may be a group

$-(L_2)-R_9-$

where L_2 is an ester linking group $-C(O)-O-$ and R_9 is oxyethylene, oxypropylene or oxybutylene or polyoxyethylene, polyoxypropylene or polyoxybutylene having a degree of polymerisation from 2 to 20;

and wherein in formula (IIID) R_{10} is a C_1 to C_8 straight or branched chain alkyl group, the two groups X and X', which may be the same or different, may be attached to the same carbon atom in the alkyl chain or to different carbon atoms in the alkyl chain, $-L_5-$ is a linking group which is

$-(L_1)_n-$ or $-R_8-$

wherein R_8 and $(L_1)_n$ are as defined above in relation to formula (IIIA) and R_{11} is C_1 to C_4 alkyl;

and wherein in formula (IVA) Y and Y' are each, independently, a straight or branched chain C_1 to C_{10} alkyl group, a polyoxyethylene, polyoxypropylene or polyoxybutylene polymer chain of formula $-(L_1)_n-$ as defined above or a group $-(L_2)-R_9-$ as defined above; and

(b) applying the encapsulated agrochemical to soil.

44. (Canceled)